

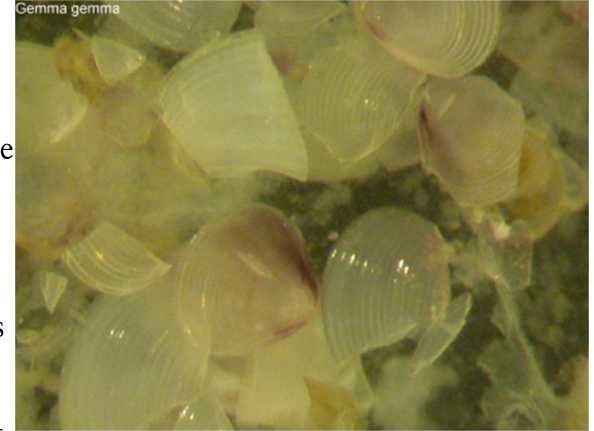


Gemma gemma

Amethyst gem clam

Threat scores

1. Ecological impact
 - Displaces and competes for resources with native species
 - Has shown under a variety of laboratory conditions to increase the larval settlement of another species of clam, *Mercenaria mercenaria* (Ahn, 1993)
 - Preferential settlement of *M. mercenaria* increased with increasing density of *G. gemma* in the sediment, suggesting that the gem clam alters the environment in some way that benefits larval settlement of other species (Ahn, 1993)
2. Invasive potential
 - Relies on passive transport mechanisms: tidal cycles, sediment bedload transport, storm deposition and other human assisted transport
 - Dispersion is highly dependent on sediment bedload transport, a passive transport mechanism which can result from many different causes
 - Another dispersal mechanism can result from high-density pressures leading to passive migration from tidal cycles that disperse juveniles to local low-density areas (Commuto et al. 1995)
3. Geographic extent
 - Locally patchy
4. Management difficulty
 - Prevention, education, integrated management can stabilize invasive populations to prevent overwhelming native populations



Geography and Habitat

1. Native: Labrador, Canada south along the western coast of the Atlantic, Florida, Gulf of Mexico
2. Introduced: Washington, Oregon, California
- Habitats
 - Marine, estuaries/bays, intertidal zones, brackish water, coastland
 - Fine sand species common in bays and estuaries, can be found in the intertidal zone to depths of 6 meters
 - Found in marine, brackish, and freshwater environments
 - Part of benthic communities

Invasion Pathways

1. Stocking in open water - Atlantic oysters
2. Other animal trade - crop of ducks
3. Natural spread

Non-Native Locations

1. 56- Puget Trough/Georgia Basin
2. 57- OR, WA, Vancouver
3. 58- Northern California
4. 59- Southern California Bight

Sources

1. Molnar, Jennifer, et al. 2008. "Assessing the global threat of invasive species to marine biodiversity." *Frontiers in Ecology and the Environment*. 6 (9), pp. 485-492.
2. <http://conserveonline.org/workspaces/global.invasive.assessment>
3. <http://nas.er.usgs.gov/XIMAGESERVERX/2009/20090316154709.jpg>